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Influence of Governance and Institutional Structures on Conservation and Livelihoods: the Case of Villages Adjacent to Saadani and Ruaha National Parks, Tanzania

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Abstract: This article assesses the influence of governance and/or institutional structures on trade-offs between conservation and development in four villages adjacent to Saadani and Ruaha National Parks in Tanzania. The fundamental argument of the article is that, existing governance and institutional structures are insufficient in terms of providing a win-win situation between conservation and people's livelihoods. This is mainly because of the top-down decision making set-up whereby lower organs of authority take what is dictated by higher ones which, more often than not, uphold conservation over livelihoods of those living next to protected areas. Also, the article identifies winners and losers in conservation and development. In light of this argument the article recommends the following: A bottom-up approach in formulation of conservation-related policies and/or legislation; control of the powers of the President to transfer any area of village land to general or reserved land for public interest; enhancement of the village administrative personnel's and local people's knowledge of conservation and development trade-offs as well as the means of calculating and negotiating them so that when and where compensation is provided it is fair in terms of providing alternative means of livelihoods.

Keywords: Conservation, Benefit-Sharing, Compensation

1. Introduction

The future of biodiversity conservation and the future of local communities living adjacent to protected areas are inextricably linked on a global scale (WWF 1999). The Convention on Biological Diversity (2004) goes to great lengths to emphasize the importance of protecting biodiversity and the livelihoods of people who still depend on direct access to natural resources for their livelihoods. Supporters of Community-Based Conservation have also used this linkage in advocating for local communities' rights and building a global indigenous peoples' movement, but with limited, and sometimes self-defeating results (Igoe 2005 & 2006).

The more professionals become involved in real-world problems, the more politically enlightened they become, and realizing that actual prevention of environmental destruction and misuses must involve social and political changes (Albee 1982). Too often problems in natural resources management and policy are viewed only (or largely) within very narrow conceptions of 'positivistic' science thus creating the misperception that, only biological sciences are required to solve them (Brewer and Clark 1994). On the other hand there are debates over the role of democracy in enhancing development and regarding human rights-based approaches to development (Thede 2009).

Decentralization acts as a lens through which the interaction of democratization, development and human rights (DDHRs) can be analyzed in concrete local contexts (Thede 2009). DDHRs are increasingly recognized to be related processes with complex interactions amongst themselves. Development itself is being redefined to reflect its nature as a multidimensional phenomenon, and can be construed to mean the full realization of human potential. Democracy is also conceived as key to that process and has, since the mid-1990s, become included as a legitimate field for development cooperation.

Striking a win-win balance between biodiversity conservation and social development has never been an easy endeavour and it is against such situation that the field of conservation is experiencing massive scholarship revolving around analytical tools for trade-offs (McShane & Wells 2004; Steffan-Dewenter et al. 2007; Cheung & Sumaila 2008; Sunderland et al. 2008; Dahlberg & Burlando 2009; Nelson et al. 2009). The concept of trade-offs, in its most basic sense, denotes that gaining something of value entails losing something else of value.

Thinking and communicating in terms of trade-offs is a positive step for conservation in that it is a move beyond "win-win" rhetoric that, while powerful from the standpoint of gaining funding and support, in the long run serves as fuel for a cycle of optimism and then disenchantment as one panacea after another fails to live up to its promise (Brosius & Russell 2003; Ostrom 2007; Redford & Adams 2009).

As calls to analyze, measure and calculate trade-offs in conservation are increasingly being made and heeded, however, a contradiction has begun to appear. On the one hand, tools and procedures to identify and calculate trade-offs between conservation and other social goals help conservation professionals confront hard choices and provide methods for doing so. On the other hand, trade-off thinking and tools are themselves ways of framing complex conservation problems, and can serve to oversimplify the issues in ways that leave out key differences in power, perspective and problem understanding. If conceived too narrowly or in an overly technical frame, trade-off analysis has the potential to conceal the very elements of a problem that must be confronted in the design and implementation of more resilient conservation initiatives.

This article attempts to assess the political and historical factors that influence conservation and development decisions by looking at governance and institutional structures, resource tenure, political ideology and legal frameworks and to understand and negotiate trade-offs. In the context of the article, trade-off is accepting less of one thing in order to get more of something else.

2. Materials and Methods

2.1. The Study Area

Four study sites (Matipwili and Mkwaja villages both adjacent to Saadani National Park in northeastern Tanzania, and Ikoga *Mpya* and Idunda villages adjacent to Ruaha National Park in southern Tanzania) were used as case studies. Matipwili and Mkwaja are administratively in Bagamoyo and Pangani Districts respectively and both Ikoga *Mpya* and Idunda located in Usangu plains (Eastern Ihefu Wetland) are administratively in Mbarali District. Regarding the southern Tanzania study site, on 15 April 2006 the government of Tanzania issued a notice to ban all livestock keeping activities in Ihefu wetland (Ikoga *Mpya* and Idunda form part of the wetland) and residents were forcefully evicted. The wetlands are connected to the Greater Ruaha River and to areas around Mtera dam. It is argued that, a critical drought period that seriously affected the country by causing shortage of hydro-electric power, food and water for humans, and water and pasture for livestock and wildlife was one of the contributing factors to the eviction order. The Ihefu wetlands are one of the major sources of water for Great Ruaha River and consequently for two major dams, i.e., Mtera and Kidatu, which produce over 80% of electricity in the country (Ngailo *et al.* 2009).

2.2. Data Collection

Data were collected through household questionnaire survey, focus group discussions and formal discussions with government officials from village level to national level and archive data reviews as detailed below.

2.2.1. Household questionnaire surveys

In each of the four villages, thirty (30) households were selected from the village register using a systematic random sampling technique. This followed training of research assistants and questionnaire pre-testing. A total of 102 households (85% of the target) in the four villages responded to the questionnaires. The same questionnaire was administered in Matipwili and Mkwaja villages – covering socio-economic, governance structures, political ideology, land tenure, legal frameworks and customary law aspects. However, the one administered in Ikoga *Mpya* and Idunda, apart from covering similar aspects as those in Matipwili and Mkwaja, had slight modification by including questions related to eviction.

In Idunda village, the affected (evicted) households, though already compensated, were still in the park whereas in Ikoga they had already moved to a new area, which they named Ikoga *Mpya*. Survey aspects covered for those still in the park included socio-economic, relocation logistics, reasons for relocation, impacts, compensation and suggestions which could minimize conflicts in the future. Those who had already relocated were probed on socio-economic issues, compensation, availability of basic infrastructure, problems they faced, participation, positive and negative impacts and suggestions which could minimize conflicts.

2.2.2. Formal discussions with conservation stakeholders

The visits were meant to get views of key conservation stakeholders both at national and district levels. In addition, visits at the district headquarters allowed the authors to acclimatize themselves and have interviews with district officials such as District Commissioners, District Executive Directors and District Planning Officers.

2.2.3. Focus group discussions

Focus group discussions were organised and run by the authors. The focus groups involved different social groups, including the youth (18-34), adults (35-54), elders (>54) and victims of the eviction in Ihefu (pupils and adults). The groups comprised 8-12 people. For pupils, a group comprised of three.

2.2.4. Literature review and secondary data collection

Publications relevant to the research topic and to the study areas were accessed from libraries and government offices. These included conceptual materials on ideas, debates and issues relevant to the subject matter.

3. Results and Discussion

3.1. Socio-economic Characteristics of the Study Area

Socio-economic characteristics of the study areas are presented in Table 1 below. The main economic activity in all four villages was agriculture, which, on average, was practiced by 85% of the populations. However, in Mkwaja village, the proportion of those engaged in agriculture was comparable to those engaged in fishing. Mkwaja village is located on the Indian Ocean coast. In terms of education, very few (5%) had secondary education and above. This implies higher illiteracy level. High level of education is argued to be instrumental in one's effort to eradicate poverty as he can apply his level education to initiate alternative livelihood options with ease when compared to a person with low level of education (Ngailo et al., 2007).

Table 1: Socio-economic characteristics of the study area

Village	N	Sex (%)		Age (%)			Education (%)			Economic activities (%)			Main ethnic group
		M	F	18-34	35-54	>54	Pr	Sec	Ab	Ag	Lv	Fish	Ethnic
Idunda	24	58	42	21	63	16	96	4	0	100	0	0	Sangu
Ikoga Mpya	29	48	52	31	59	10	94	6	0	99	1	0	Hehe
Mkwaja	26	62	38	12	69	19	89	8	3	52	6	42	Zigua
Matipwili	23	74	26	48	50	2	92	8	0	90	10	0	Doe
Average	26	61	39	28	60	12	93	5	2	85	4	11	

N=sample size M=male F=female; Pr=primary; Sec=secondary Ab=above secondary Ag=agriculture Lv=livestock Fish=Fishing

3.2. Conservation Governance and/or Institutional Structures

Governance structures and/or institutions at national and local levels were explored through household questionnaire survey, literature reviews and discussions with government officials at national and district levels. At national level the government puts conservation mandates into central and local governments. The central government includes Ministries, parastatal organizations (Tanzania National Parks and Ngorongoro Conservation Area Authority) and independent departments, while the local government includes District Councils, Wards and Village Councils (MNRT 2007).

According to the Wildlife Policy (MNRT 2007) the central government is to provide clear national policy and regulatory frameworks, stimulate and promote participation of various stakeholders in the implementation of the policy, manage core wildlife protected areas and oversee the sector's development. On the other hand, local government authorities are to implement this policy. District Councils have a role to provide extension services and lead other agencies in the implementation of the policy in their areas of jurisdiction through formulating and enforcing by-laws, providing technical support and conservation education to villages, and preparing sound physical and development plans that protect wildlife resources. Furthermore, the government recognises the role of different

stakeholders relating to conservation, management, utilization of wildlife and development of the conservation sector. Stakeholders include the private sector, NGOs and the public (MNRT 2007).

At local level (Table 2), local communities had the view that these structures and/or institutions are present (90%; n=102). Governance structures in place include village council offices, ward administration, and environmental committees and/or natural resources management committees. However, these structures seem to be mal-functioning as observed by 74% of the respondents. Reasons put forward for lack of effectiveness were lack of local communities' involvement in major decisions affecting large strata of the communities, and lack of both conservation education and transparency.

Table 2. Assessment of conservation governance structures at local level

Village	Government structures/institutions in place		Type of structures/institutions	Functional?		Why mul-functional?
	Yes (%)	No (%)		Yes (%)	No (%)	
Idunda	89	11	Village government office, Ward office, environment committee	20	80	Lack of involvement of locals in major decisions
Ikoga Mpya	85	15	Village government office, Ward office, environment committee, natural resources management committee	25	75	Locals not involved in decision making, illiteracy of village leaders
Mkwaja	90	10	Saadani National Park, environmental committee, natural resources management committee	30	70	Lack of involvement of locals in major decisions, lack of conservation education
Matipwili	95	5	Saadani National Park, village land committee, village executive office, Kipaku forest Committee	29	71	Lack of regular meetings and transparency
Average	90	10	NA	26	74	NA

NA=Not Applicable

According to the country's administrative set-up, there are institutional structure linkages at national and local levels. However, the relationship is, in most cases, not in harmony mainly because of the top-down approach mostly used in decision making. Local level institutional structures are treated as recipients of decisions made above without consultation with them. Incompatibility of the two levels has been and still is the cause of land use and/or human-wildlife conflicts at local level. It can be argued that conservation decisions are made at local and national levels but always at the expense of the poor local communities.

Examples in Saadani area include the decision by Management of Saadani National Park to restrict sand quarrying at Sima and fishing at Funguni (an area reported to be a breeding site for many fish species) without providing alternatives. Another example is the eviction of people from Ihefu wetland (now part of Ruaha National Park) against their will and/or without meaningful compensation. Win-win situation demands participatory decision making. But, in such circumstances, participatory decision making can only be achieved if local communities are involved in all major decisions affecting their livelihoods.

A good example of unparticipatory processes is the way natural resource management policies and/or legislation are formulated and implemented in Tanzania. In terms of formulation, local communities are barely involved. As for policy implementation, the approach used is normally top-down and worse more the policy documents are rarely accessible and where they are they are always in English, which is not a user-friendly language for the intended stakeholders. These scenarios demand for links and a two-way communication between the local and national levels in terms of providing directives and making policies that are implementable at the lower levels. The idea here is that, there should be appropriate relationship in the governance structures whereby the lower levels are informed by policies and laws made from above.

Respondents at village level were asked to suggest mechanisms, which could make governing institutions effective. They suggested several strategies, including availability of wild meat (game meat), provision of soft loans to enable them to engage in non-farm activities (reduce dependence on natural resources), equitable benefit sharing (from park) and the return of Sima and Funguni areas. Before it was annexed to Saadani National Park, Sima area used to be the main source of sand for construction. Currently the people are denied this opportunity and are forced to use sub-standard sand from beaches within the villages. As for Funguni, the area is rich in fish (it is a breeding site for several fish species) and fishermen used to get big catches there. Currently they do not have specific sites and the sizes of catches are relatively small compared to those at Funguni. Apart from local communities' suggestions, it is the opinion of the authors that devolvment of decision-making powers to local communities, involvement of local communities (not just consultations) in major decisions, equitable benefit sharing, and enhancement of conservation education can help to achieve both conservation and development.

3.3. Land Tenure System, Relocation and Compensation

Land tenure system was found to be a source of land-use conflicts and a hindrance to conservation efforts in the study areas. For example, Ikoga *Mpya* and Idunda residents (adjacent to

Ruaha National Park) were harshly evicted from their native lands thus violating human rights (See Table 3).

Table 3: Views of local communities related to relocation

Village	Compensated?		Amount (Tzs '000)			Problems faced
	Yes (%)	No (%)	< 1	1-5	6-10	
Idunda	95	5	60	30	10	Student's failure to attend school, low compensation, not involved in any economic activities for fear of eviction any time, no basic infrastructures in Mulungu – proposed school to absorb them
Ikoga Mpya	93	7	59	37	4	Low compensation, lack of basic infrastructure (schools, water, markets, dispensary), lack of farms and renting of houses
Average	94	6	60	34	6	

Tzs=Tanzanian Shilling

The Tanzanian National Land Policy has five statements, which guide land tenure and management in Tanzania. They are (i) all land in Tanzania is public land vested in the President as trustee on behalf of all Tanzanians, (ii) Land has value, (iii) Rights to land shall not be taken from citizens without due process of law and full, fair, and prompt payment of compensation, (iv) Village councils will administer village lands, and (v) Mechanisms for protecting sensitive areas such as water catchments, islands, beaches, forests, rivers, wildlife migration routes etc. will be established (MLHSD 1997).

Details of how the policy is to be implemented and how rights and responsibilities are specified are found in the country's land laws, i.e., Land Act, 1999 and Village Land Act, 1999. In the central government, the President designates administrative powers to the Minister for Lands. Land in Tanzania is divided into three categories: reserved land (set aside for wildlife conservation etc.), village land (subject to Village Land Act) and general land (under management of the Commissioner of Lands) (MLHSD 1997).

The land policy recognises the importance of wildlife, in particular wildlife habitat, by calling for revocation of land titles in all wildlife migratory corridors and buffer zones (MLHSD 1996). The wildlife policy pronouncements do not, however, effectively address the issue of competition for land use in wildlife areas, and particularly buffer zones and migratory corridors. This scenario is caused by two main reasons. First, the two policies are focused on wildlife conservation at the potential expense of community needs and priorities. Second, they do not recognise local communities as genuine and equal partners with government and other stakeholders in wildlife management.

The United Nations International Covenant on Civil and Political Rights details the basic civil and political rights of individuals and nations. Among the rights of individuals is the right to legal recourse when their rights have been violated, even if the violator was acting in an official capacity (ICCPR 1996 available at <http://www2.ohchr.org/english/law/ccpr.htm>). Similar observations were raised in Matipwili and Mkwaja villages. Regarding this, one Matipwili resident stated that:

“There is lack of compensation for our lost land. For instance, the Wildlife Division took our land at Tengwe in 1972 but we have not been compensated. The same has been repeated by TANAPA (Tanzania National Parks). Furthermore, TANAPA has failed to involve us in fixing boundaries and as a result we continue losing our land each time they clear boundaries”.

On natural resources, The United Nations International Covenant on Civil and Political Rights of which Tanzania is a party says that, people have the right to dispose of their natural wealth: “All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence.” (Sic) (Part 1, Article 1) (www.hrweb.org/legal; p.1).

Also, the Covenant recognizes three principles that have to be observed: All peoples have the right of self-determination. By virtue of that right they can freely determine their political status and freely pursue their economic, social and cultural development; all peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence; and the State Parties to the present Covenant, including those having responsibility for the administration of Non-Self-Governing and Trust Territories, shall promote the realization of the right of self-determination, and shall respect that right, in conformity with the provisions of the Charter of the United Nations (www.hrweb.org/legal).

Furthermore, the Universal Declaration of Human Rights (UDHR) adopted by the United Nations’ General Assembly on December 10, 1948 has 30 articles on rights and freedoms of individuals and states in place (www.hrweb.org/legal). UDHR is set to promote respect for these rights and freedoms. For example, articles 5 and 12 are against inhuman or degrading treatment of individuals and interference with privacy, family, or attacks upon honour respectively (www.hrweb.org/legal).

In the case of Tanzania, the complicating factor is that individual rights to land are ambiguous (Ik Dahl 2007). In a dissertation on the politics of land in Tanzania, Geir Sundet argues that, while

settlers held land under statutory law in the colonial period, customary use of land was never seen as ownership of land:

“The Africans held their land under ‘customary law’, and their deemed Rights of Occupancy were permissive rights which were seen to be actively ‘provided’ and guaranteed by the government rather than being indisputable rights held by smallholders and pastoralists in their own right” (Sundet 1997:135).

Sundet’s analysis shows that central tenets of land policy have remained “virtually unaltered since the colonial period” (Sundet 1997:134). While the new land laws (Land Act, 1999 and Village Land Act, 1999) appear to be radical, there are provisions, which allow the government to disregard customary rights when there are alternative usages that may contribute to “development”, like large-scale mining.

The forceful relocation of Ikoga and Idunda residents was meant to annex Ihefu wetland to Ruaha National Park. According to the victims, they were given a short notice (one month) to shift to earmarked areas (e.g. \approx 200 km from Ikoga to Ikoga Mpya), they were paid unfair compensation (between less than Tzs 1 Million ($<$ US \$ 900) and Tzs 10 Million (US \$ 9000) (1 US \$ = 1,000 Tzs, January 2008), children stopped going to school, and they were no longer involved in economic activities due to lack of land suitable for farming and/or fear of further eviction (Idunda villagers) (Table 3). About 94% of Ikoga and Idunda residents had received compensation but, 60% of them received less than Tzs. 1 million ($<$ US \$ 900). In addition, the resettled residents at Ikoga Mpya were living in pathetic conditions (Fig. 1a & 1b).



Fig. 1a: New residential area for one of the evicted household at Ikoga Mpya (new Ikoga) village
(Photo taken by Mrisho Malipula on 14th September, 2008)



Fig. 1b: Recently evicted Ikoga *Mpya* (new Ikoga) residents at the village multi-purpose shop which is under a tree. Different products of beverages are sold as some residents are seen enjoying beer and local brew. (Photo taken by Mrisho Malipula on 14th September, 2008)

Despite the fact that there are recognised avenues for lodging complaints, viz: appeal committee comprising of district land officer, ward councillors, land valuer, district legal officer and village leaders, the practice suggests that little is added to the complainants because most of the victims are not complaining on basis of law but their intuitions and standards. Due to this most villagers lack trust in the complaint process. Probably an independent team could ensure objectivity and trust on part of the victims. This is because some of the people in the appeal committee participated in the evaluations that resulted into the meagre compensation the evictees received.

During informal discussions with some victims of the eviction at Idunda and Ukwaheri, they were bitter on the government's decision to forcefully relocate them. For instance, two class seven pupils at Idunda Primary School had this to say:

“Teaching stopped long time ago. Recently the teachers came and taught for four days and left, but we are supposed to sit for the national examination in September. What do you expect? ... The government has been unfair to us and we have lost direction. For almost a year teachers

have not been teaching; most of the teachers have been transferred but we would have liked to be like you... ”

A wife (and mother) and husband had this to say regarding the eviction and compensation:

“We were paid Tzs 600,000 (US \$ 540). We had three hectares of land on which we grew rice and three for maize. Also, we had five grass-thatched houses. Now we sleep outside except our children who sleep in that temporary shelter (Fig. 1a). There is no infrastructure in place, e.g., water, schools, shops, dispensary, farms etc. The place is waterlogged, and my daughter, who is now in class four, is no longer attending school because the nearest school is at Luhanga, about 12 km from here...”

Another resident accused the District Commissioner (DC) for harassment and for giving priority to wildlife than to people's livelihoods. He said “The DC is harassing us with harsh words such as ‘Are you still here? I will send my dogs (militia men) to evict you by force, if you don't move by 15/8/2008’”.

The comments above are a testimony that the eviction/forced relocation was contrary to earlier promises by government to pay them appropriate compensations and putting basic infrastructure at the earmarked places before relocating them. One could argue that, this was violation of human rights.

On the district administration side, district leaders, i.e. DC and District Executive Director (DED) for Mbarali had the following opinions:

“The purpose of evicting people was to ensure that the number of livestock in Ihefu wetland is reduced in order to mitigate environmental degradation. The area is known as the country's water plate and is a very important water source for Mtera Dam - the source of electric power in the country. Before the move started in 2000 there were 271 pastoralists in the area and most of them came from dry areas of the country and some had herds of cattle ranging from 300-10,000. Apart from causing environmental degradation they also started killing people in neighbouring villages and one gun belonging to the Police force was snatched during the chaos”. Hon. Hawa Ngulume, DC, Mbarali - 20 August 2008

“...Msangaji (Ikoga) villagers have already been paid compensation and were relocated to Ikoga Mpya, near Madibira village. Some of the locals have already moved to the area and/or built houses. There is yet no infrastructure in place and compensation made for infrastructure was not realistic. The task of developing social infrastructure was assigned to TANAPA. So far about Tzs. 212 Million (US \$ 212,000) have been paid to the relocated people. An outdated

compensation law (the Land Compensation Act, 1973) *was used in paying the victims.*” Mr. Mhecha, DED, Mbarali - 20 August 2008.

3.4. Political Ideology and Conservation

The authors investigated whether political ideology or politicisation had any influence in conservation. In this article politicisation refers to the extensive inclusion of politicians, political institutions and political actions in influencing, determining and shaping conservation activities and particularly trade-offs. Overall, in the four study villages combined, the majority (67%) had the opinion that, political ideology inclination has little influence in conservation issues (Fig. 2). The minority believed, however, that political ideology could influence human rights awareness raising among the communities; could help in political system check-up; and could make the government active. The majority (72.5%) of questionnaire survey respondents in villages adjacent to Saadani National Park believed that political ideology had no role in conservation. The figure for Ruaha National Park (Ihefu wetland) was relatively lower but still a majority (61.5%). The authors believe that presence of people with different political affiliations could act as checks and balances in conservation and development trade-offs. During a discussion with the Mbarali DC, she blamed opposition parties for mobilizing people not to accept the relocation. According to local communities the socio-political implications of eviction include failure to provide social amenities to victims, low level of literacy and low level of participation in decision making.

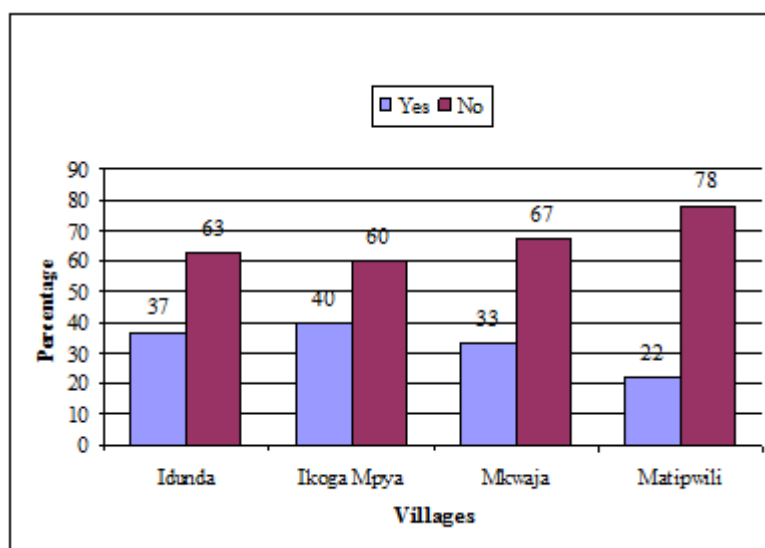


Fig. 2. Influence of political ideology in conservation

Legal framework and conservation

The Legal and Regulatory Framework need to encompass issues and priorities related to creating enabling environment for implementation of institutional change, decentralization, privatisation, gender-sensitive participatory management and biodiversity conservation. In Tanzania, there is inadequate legal framework for gender-balanced participation in natural resource conservation. This has contributed to low motivation in local communities to effectively participate in management of government-owned protected areas. Sharing of responsibilities in natural resource conservation has become eminent. Formal mechanisms for sharing benefits are needed as well. Also needed is harmonization of policies and laws to remove overlaps and conflicts such as those related to mining, wildlife management, agricultural development and forest-related trade.

Respondents were probed whether they were aware of conservation-related legislation and/or customary conservation rules and regulations. Overall, in the four study villages combined, a small proportion (46%) claimed to be aware of conservation-related legislation. However, when asked to mention them, they mentioned village by-laws, e.g. control of wildfires, restriction on cutting trees etc. This scenario is a challenge to government to ensure that conservation policies and laws are accessible (in a user friendly language) to communities adjacent to protected areas, that there is provision for rational and/or meaningful compensation and that social amenities are in place before any relocation is effected. This will enable local communities to understand their rights and obligations related to conservation issues. During the study the wildlife laws could not be accessed at local level.

Winners and losers in conservation and development

In addressing key issues within the study areas, viz: protection of biodiversity, preservation of the Great Ruaha River and conservation of Usangu wetlands (of which Ihefu wetland is part) losers and winners are inevitable. Both winners and losers are at all levels, from local to national as indicated in Table 4.

Table 4: Matrix of winners and losers in conservation and development

Study area	Core issues	Winners	Losers
Saadani National Park (Matipwili and Mkwaja)	Protection of biodiversity	TANAPA, central government (MNRT), tourists (local and international), conservation agencies/organisation, global community (e.g. carbon sequestration),	Fishermen, farmers, pastoralists

District Councils			
Ruaha National Park/Usangu wetlands (Idunda and Ikoga Mpya)	Preservation of Great Ruaha River	TANESCO, TANAPA, central government (MNRT, MWI), tourists (local and international), District Councils	Farmers (rice), pastoralists, fishermen, horticultural crops producers, central government (MoA)
	Conservation of Usangu wetlands	Central government (MWI), TANESCO, tourists (local and international), conservation NGO/CBO	Farmers, pastoralists, horticultural producers, central government

MoA=Ministry of Agriculture; MNRT=Ministry of Natural Resources & Tourism; MWI=Ministry of Water & Irrigation; TANAPA=Tanzania National Parks; TANESCO=Tanzania Electric Supplies Company; NGO=Non-Governmental Organisation CBO=Community-Based Organization

4. Conclusions

In conservation and development trade-offs, politics has a role to play and there are winners and losers. In the process of achieving conservation and development goals hard choices need to be made. The authors recommend: regular review of laws related to natural resource conservation and compensation; sincerity in implementing the bottom-up approach, e.g. in formulation and implementation of conservation-related policies and/or legislation; to reduce powers of the President related to land tenure issues, e.g. the power to transfer any area of village land to general or reserved land for public interest; involvement of local communities in major decisions, which impact on their livelihood; and capacity building for local leaders and people on conservation matters and trade-off negotiations.

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